ABSTRACT

     A software system having a multi-layer
architecture for controlling a hardware system
including a latch layer, a hardware control layer, an
5   access layer, and an orchestration layer. The latch
layer includes a latch object for each of a set of
control points of the hardware system. Each latch
object provides a common interface in the software
system for accessing the corresponding control point.
10   The hardware control layer includes a hardware
control object for each of a set of sub-portions of
the hardware system. Each hardware control object
coordinates accesses to the control points of the
corresponding sub-portion through the latch layer.
15   The access layer includes an access object for each
of a set of groupings of the sub-portions. Each
access object coordinates accesses to the
corresponding grouping of the sub-portions. The
orchestration layer includes an orchestration object
20   for each of a set of functional features of the
hardware system. Each orchestration object provides
a common interface in the software system for
accessing a corresponding grouping of the access
objects which are associated with the corresponding
25   functional feature.